

WHAT IS CLAIMED IS:

1. A fused disconnect switch assembly comprising:

a fuse comprising a line side conducting portion, a load side conducting portion, and a fuse element therebetween;

a switch housing assembly comprising a housing comprising a fuse receptacle for receiving said fuse, a first contact assembly located in said housing and coupled to said line side conducting portion of said fuse when said fuse is inserted into said receptacle, and a second contact assembly located in said housing and coupled to said load side conducting portion of said fuse when said fuse is inserted into said receptacle;

an open fuse indication device in communication with said line side conducting portion of said fuse and said load side conducting portion of said fuse; and

said switch housing assembly further comprising an alarm terminal output in communication with said open fuse indication device.

2. A fused disconnect switch assembly in accordance with Claim 1 wherein one of said first and second contact assemblies comprises a bullet contact assembly.

3. A fused disconnect switch assembly in accordance with Claim 1 wherein one of said first and second contact assemblies comprises a box contact assembly.

4. A fused disconnect switch assembly in accordance with Claim 1 wherein one of said first and second contact assemblies comprises a terminal stud.

5. A fused disconnect switch assembly in accordance with Claim 4 further comprising a common bus bar coupled to said terminal stud.

6. A fused disconnect switch assembly in accordance with Claim 1 wherein said fuse line side conducting portion and said fuse load side conducting portion comprises a terminal blade.

7. A fused disconnect switch assembly in accordance with Claim 6, said fuse receptacle comprising a bottom and terminal openings extending through

said bottom, said line side and load side terminal blade inserted through said terminal openings when said fuse is inserted into said receptacle.

8. A fused disconnect switch assembly in accordance with Claim 7 wherein said first and second contact assemblies comprise fuse clips, said fuse terminals inserted into said fuse clips when said fuse is inserted into said receptacle.

9. A fused disconnect switch in accordance with Claim 1 wherein said open fuse indication device comprises a high resistance electronic circuit.

10. A fused disconnect switch in accordance with Claim 9 wherein said circuit comprises at least one transistor element and an LED, said LED activated by said at least one transistor element in response to a voltage drop across said electronic circuit.

11. A fused disconnect switch in accordance with Claim 9 wherein said fuse comprises a housing, said open fuse indication device disposed internal to said housing and in communication with said line side conducting portion and said load side conducting portion.

12. A fused disconnect switch in accordance with Claim 1, said fuse further comprising an alarm terminal coupled to said open fuse indication device, said switch housing further comprising an internal alarm terminal communicating with said fuse receptacle and said alarm output terminal, said fuse alarm terminal engaging said internal alarm terminal when said fuse is inserted into said receptacle.

13. A fused disconnect switch assembly comprising:

a pull out fuse assembly; and

a switch housing assembly for receiving said pull out fuse assembly, said switch housing assembly comprising:

a housing comprising a fuse receptacle, a first terminal cavity in communication with said fuse receptacle, and a second terminal cavity in communication with said fuse receptacle;

a first terminal contact assembly disposed in said first terminal cavity, said first terminal contact assembly establishing a line side electrical

connection through said fuse assembly when said fuse assembly is inserted into said fuse receptacle;

a second terminal contact assembly disposed in said second terminal cavity, said second terminal contact assembly establishing a load side electrical connection through said fuse assembly when said fuse assembly is inserted into said fuse receptacle, said fuse assembly at least partially extending from said fuse receptacle when connected to said fuse receptacle to facilitate visual local fuse state indication; and

a remote output alarm terminal extending through said housing and communicating a signal from said fuse assembly for remote indication of an open fuse condition.

14. A fused disconnect switch assembly in accordance with Claim 13 wherein at least one of said first and second terminal contact assemblies comprises a bullet contact assembly.

15. A fused disconnect switch assembly in accordance with Claim 13 wherein at least one of said first and second terminal contact assemblies comprises a box contact assembly.

16. A fused disconnect switch assembly in accordance with Claim 13 wherein at least one of said first and second terminal contact assemblies comprises a terminal stud.

17. A fused disconnect switch assembly in accordance with Claim 13, said housing further comprising a DIN rail latch.

18. A fused disconnect switch assembly in accordance with Claim 13 further comprising a common bus bar extending from one of said first and second terminal contact assemblies.

19. A fused disconnect switch assembly in accordance with Claim 18, said housing comprising an anti-rotation slot for receiving said common bus bar.

20. A fused disconnect switch assembly in accordance with Claim 13, said switch housing assembly further comprising an internal alarm terminal in

communication with said fuse receptacle, said internal alarm terminal coupled to said alarm terminal output for communication an alarm signal.

21. A fused disconnect switch assembly in accordance with Claim 13 further comprising an open fuse indication device in communication with said fuse receptacle.

22. A fused disconnect switch assembly in accordance with Claim 14 wherein said open fuse indication device is coupled to said pull-out fuse assembly.

23. A fused disconnect switch assembly in accordance with Claim 22 wherein said open fuse indication devices comprises a high resistance electronic circuit.

24. A fused disconnect switch assembly in accordance with Claim 23 wherein said circuit comprises at least one transistor element and an LED, said LED activated by said at least one transistor element in response to a voltage drop across said electronic circuit.

25. A fused disconnect switch assembly comprising:

a pull out fuse assembly comprising a housing, a fuse element within said housing and an open fuse indication device configured to visually indicate a state of said fuse element; and

a switch housing assembly comprising a housing defining a fuse receptacle for receiving said pull out fuse assembly, at least a first terminal contact assembly comprising a bullet contact assembly for connection to external circuitry, and an alarm terminal output extending from said housing and configured for coupling to remote fuse state indication circuitry.

26. A fused disconnect switch assembly in accordance with Claim 25, said switch housing assembly further comprising a second terminal contact assembly, said alarm terminal output positioned between said first terminal contact assembly and said second terminal contact assembly.

27. A fused disconnect switch assembly in accordance with Claim 25 wherein said second terminal contact assembly comprises a box contact assembly.

28. A fused disconnect switch assembly in accordance with Claim 25 wherein said open fuse indication device comprises a high resistance electronic circuit.

29. A fused disconnect switch assembly in accordance with Claim 28 wherein said pullout fuse assembly further comprises first and second terminals extending from said housing.

30. A fused disconnect switch assembly in accordance with Claim 29 wherein said fuse receptacle comprises a bottom and terminal openings extending therethrough, said first and second terminals of said pull out fuse assembly inserted through said terminal openings when said pull out fuse assembly is connected to said switch housing assembly.

31. A fused disconnect switch assembly comprising -

a pull out fuse assembly comprising a fuse housing, first and second fuse terminals extending from said housing, and an open fuse indication device comprising a high resistance electronic circuit comprising an LED for local fuse state indication; and

a switch housing assembly comprising:

a housing comprising a fuse receptacle for receiving said pull out fuse assembly, said fuse receptacle comprising a bottom and first and second terminal openings therethrough;

first and second terminal contact assemblies disposed adjacent said fuse receptacle, said first and second terminal contact assemblies comprising resilient spring clips, said spring clips receiving said first and second fuse terminals when said first and second fuse terminals are inserted through said terminal openings of said fuse receptacle;

an internal alarm terminal communicating with said open fuse indication of said open fuse indication device when said fuse assembly is located within said fuse receptacle; and

an alarm terminal output in communication with said internal alarm terminal and extending from said housing of said switch housing assembly.

32. A fused disconnect switch assembly in accordance with Claim 31 wherein said fuse assembly comprises an alarm terminal extending from said open fuse indication device to an opening in said housing.

33. A fused disconnect switch assembly in accordance with Claim 31 wherein one of said first and second terminal contact assemblies comprises a box contact assembly.

34. A fused disconnect switch assembly in accordance with Claim 31 wherein one of said first and second terminal contact assemblies comprises a bullet contact assembly.

35. A fused disconnect switch assembly in accordance with Claim 31 wherein one of said first and second terminal contact assemblies comprises a terminal stud.

36. A fused disconnect switch assembly in accordance with Claim 35 further comprising a common contact bus bar coupled to said terminal stud.

37. A fused disconnect switch assembly in accordance with Claim 31 wherein said circuit further comprises at least one transistor element, said LED activated by said at least one transistor element in response to a voltage drop across said electronic circuit.

38. A fused disconnect switch assembly comprising

a pull out fuse assembly comprising a fuse housing, first and second fuse terminals extending from said housing, and an open fuse indication device comprising a high resistance electronic circuit comprising at least one transistor element and an LED, said LED activated by said at least one transistor element in response to a voltage drop across said electronic circuit; and

a switch housing assembly comprising a housing configured for receiving said pull out fuse assembly, first and second terminal contact assemblies disposed within said housing, said first and second terminal contact assemblies

establishing a line side electrical connection and a load side electrical connection through said pullout fuse assembly when said fuse assembly is connected to said switch housing.

39. A fused disconnect switch assembly comprising:

a pullout fuse assembly comprising a pair of fuse terminals and a fuse element extending therebetween; and

a switch housing assembly comprising a housing configured for receiving said fuse assembly and a pair of switchable terminal contacts therein for receiving said pair of fuse terminals, at least one of said terminal contacts comprising a bullet contact assembly.